UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

MARY BAYES and PHILIP BAYES,	)	
	)	
Plaintiff(s),	)	
	)	
vs.	)	Case No. 4:13-cv-00800-SRC
	)	
BIOMET, INC., et al.,	)	
	)	
Defendant(s).	)	

Memorandum and Order

In 2008, Plaintiff Mary Bayes had both her hips replaced with artificial hip implants designed, manufactured, and sold by Defendant Biomet Orthopedics, LLC. After her hip replacements, she encountered severe complications requiring numerous additional hip surgeries. In 2013, she filed suit against Biomet seeking relief for her injuries. Today, 12 years after her hip replacements and seven years since she filed suit, Plaintiff's case is on the verge of trial. The parties have filed a bevy of motions, including cross-motions for summary judgment and eight different motions to exclude expert testimony. In this Order, the Court takes up [124] Biomet's motion for summary judgment and [107] Biomet's motion to exclude Plaintiffs' case-specific causation experts.

I. Background

Mary's[1] doctor implanted Biomet's M2a Magnum hip implants. In time, Mary began experiencing problems with her hips, and believing the Biomet implants were the cause, Mary and her husband, Philip Bayes, filed their Complaint in this Court. Doc. 1. Due to the volume of

[1] The Court refers to Plaintiffs Mary and Philip Bayes by their first names to distinguish them, and not to imply any familiarity.

Biomet hip-implant cases, an MDL was created in the United States District Court for the Northern District of Indiana to handle pretrial matters for all cases involving Biomet's M2a line. *See* Doc. 18. The Judicial Panel on Multidistrict Litigation transferred Plaintiffs' case to the MDL for pretrial matters. Doc. 11. In September 2018, the MDL Court remanded Plaintiffs' case to this Court for trial.

This Court must decide the remaining aspects of the case, including the present cross-summary judgment motions and several case-specific *Daubert* motions. Biomet moves to exclude Plaintiffs' case-specific causation experts and for summary judgment on all of Plaintiffs' claims. Because Biomet's motion to exclude Plaintiffs' causation experts is potentially dispositive of the summary judgment motion, the Court considers these motions together.

II. Uncontroverted facts

Mary began experiencing pain in her right hip in 2007, at age 58. She was referred to an orthopedic surgeon, Dr. Daniel Martin, for further evaluation. X-rays showed degenerative changes in Mary's right and left hips. Mary first began a course of non-operative treatment, including physical therapy. When her pain continued to worsen, Mary elected to undergo a total hip replacement of her right hip. Martin selected the Biomet M2a Magnum implant for Mary's hip replacement surgery.

Martin performed Mary's right total hip replacement in January 2008. Approximately four months later, Mary elected to also undergo a left hip replacement to address her worsening left hip pain. Martin performed Mary's left total hip replacement in April 2008, again using the Biomet M2a Magnum implant. A few years later, Mary began experiencing problems with her hips. Understanding the case requires the Court to explain the M2a Magnum hip implant and related issues, as well as Mary's post-implant symptoms and medical care.

The Court provides a somewhat simplified, plain-English explanation of a few basic hip-implant concepts. To begin, the femur—the bone going into the hip socket—moves in many directions: up and down (think of raising your knee), side to side (think of swinging your leg left to right), and it rotates (think of moving your leg in a circle). Next, the surgeon attaches the hip-implant pieces to parts of the patient's bones. Because the femur moves in so many directions, the angles at which the surgeon attaches the implant pieces to the bones matter: too much of an angle one way or the other can cause problems for the patient. Other issues can cause problems for the patient, too, such as the implant moving over time in the patient's body, causing the attachment angles to change. And, the hip implants themselves may have defects that cause problems. In this case, the Bayeses claim that defects in Biomet's M2a Magnum implant caused Mary's problems, while Biomet claims that the surgeon attached the implants at the wrong angles, which caused Mary's problems.

A. The Biomet M2a Magnum hip implant

The M2a Magnum contains three components: a ball-shaped femoral head (which is attached to the end of the femur, the elongated bone extending from the hip to the knee), a taper insert (used to attach the head of the implant to the femur), and an acetabular cup (which is seated in the hip). The femoral head joins with the acetabular cup like a ball in a cup, forming the joint of the implanted hip replacement. The M2a Magnum's femoral head and acetabular cup are made from cobalt chrome molybdenum alloy. The taper insert is made of a titanium alloy. Because the M2a Magnum uses all metal components, it is referred to as a "metal-on-metal" implant. Some other hip implants available on the market use different material construction, including ceramic-on-ceramic, ceramic-on-polyethylene, and metal-on-polyethylene.

B. Biomet's M2a Magnum instructions for use and surgical technique

Biomet included Instructions for Use with Mary's M2a Magnum implants. The Instructions for Use note that implantation of the M2a Magnum can result in particulate wear debris leading to "material sensitivity reactions" including osteolysis (bone degeneration), genotoxicity (damage to genetic information in cells), and metal hypersensitivity (immune disorder associated with contact with certain metals). Doc. 148-10. The Instructions for Use also note elevated metal ion levels as a possible adverse effect, but state that the long-term effects of metal ions are "unknown." *Id.* Other possible adverse effects listed in the Instructions for Use include infection and allergic reaction, loosening or migration of the implants, fretting and crevice corrosion, and wear and/or deformation of articulating surfaces. *Id.* The Instructions for Use also warn that improper alignment of the M2a Magnum components "may lead to excessive wear and/or failure of the implant or procedure." *Id.* Martin did not read the M2a Magnum Instructions for Use before either of Mary's hip replacement surgeries.

Biomet also provides a Surgical Technique for use with the M2a Magnum, which among others explains angles at which the surgeon should attach the implant pieces to the patient's body: "Placing the cup at 40-45 degrees of abduction and 15-20 degrees of anteversion should provide optimal range of motion." Doc. 168-1. The "cup" part of a hip implant resembles a hollow sphere cut in half. Abduction and anteversion angles measure the position of the open side of the cup when it is implanted in the hip. A higher abduction angle means the open side is more vertical in the body. (The opening faces straight down at zero degrees abduction. At 90 degrees of abduction, the opening is completely vertical.) Similarly, anteversion measures the left-to-right rotation of the open side of the cup. While the parties dispute whether the angles stated in the Surgical Technique are the "correct" or the "optimal" angles, suffice it to say that

the angles of attachment play a role in the patient's experience with the implant. The record contains no evidence that Martin reviewed Biomet's M2a Magnum Surgical Technique.

C. Martin's selection of the M2a Magnum implant

Mary had no input in selecting the implant used for her hip replacement surgeries. She trusted Martin to make that decision. Mary did not review any Biomet promotional material or speak to any Biomet representatives before her hip replacement surgeries.

Martin testified that he selected the Magnum M2a in part because he believed, at the time of Mary's hip implants, that metal-on-metal devices generated a smaller volume of wear debris than other devices. Doc. 148-14 at 22:23-23:5. The record contains no evidence that Martin ever reviewed advertisements or other promotional material regarding the M2a Magnum. He testified that advertisements from device manufacturers "don't change [his] method of practice." Doc. 126-3 at 11:13-20. Biomet produced a marketing brochure for the M2a Magnum. The brochure included a graphic depicting two piles of particles, one far larger than the other. Doc. 148-20. A caption under the graphic states: "The above photos are representative of 25-years cumulative metal-on-metal wear debris vs. 25-years of cumulative polyethylene wear debris." *Id.*

Martin testified that he relied on professional meetings and medical literature to alert him of the potential risks of implant devices. Doc. 148-14 at 62:15-23. He also testified that he consults manufacturer sales representatives if an implant uses "different technology" or requires a novel surgical technique. *Id.* Martin interacted regularly with a Biomet sales representative, Jacob Weible. Weible testified that he could not recall ever receiving training from Biomet about the risks associated with elevated metal ion levels. Doc. 148-16 at 28:10-29:11. Sometime prior to 2004, Biomet sent a field communication to its sales representatives instructing them to "change the subject" if doctors raised metal ion concerns. Doc. 148-19.

D. Position of the left hip acetabular cup

Martin implanted the M2a Magnum in Mary's left hip on April 28, 2008. The same day, his colleague reviewed Mary's post-surgery X-rays and determined that the left hip was in the "expected radiographic position." Doc. 148-9. At Mary's two-week follow-up, Martin noted that the left hip implant was "in good position." *Id.*

Around three years later, Mary began experiencing progressively worsening pain in her left hip. In November 2010, Mary sought a second orthopedic surgeon opinion from Dr. Jeffrey Martin. On X-rays, Dr. Jeffrey Martin observed that Mary's left acetabular cup was abducted 60-65 degrees and the right cup was abducted approximately 45 degrees. Dr. Jeffrey Martin noted concern that Mary "may have an issue with metal-on-metal implant interface because of her abducted cup position over time." Doc. 126-2 at 14-15.

Dr. Paul Lux began treating Mary in January 2011. He documented at that time that Mary's left cup was "a little bit vertical." *Id.* at 13. Lux later calculated the abduction angle in Mary's 2011 X-rays to be 60 degrees.

E. Mary's first left hip revision surgery

Lux recommended a revision surgery for Plaintiff's left hip. Lux performed Mary's first left hip revision surgery in March 2011. He found "extensive metallosis" in the muscle and soft tissues of Mary's left hip. *Id.* at 18. Metallosis refers to the deposition and build-up of metal debris in the soft tissues of the body, which can lead to tissue death. Lux noted that a portion of the abductor tendon had been worn away due to the metallosis process, but 2/3 of the tendon was still intact. Lux removed the M2a Magnum implant from Mary's hip and replaced it with a new implant using ceramic-on-polyethylene components. The M2a Magnum implant Lux removed from Mary's left hip was not preserved.

F. Mary's hip dislocations and additional revision surgeries

Mary's left hip dislocated in May 2011 when she bent to remove her sandals. Days later, she dislocated her left hip again when she bent over and rotated her hip. Following these dislocations, Lux told Mary that she had had likely violated the acceptable ways to move after a hip replacement.

Lux performed a second revision surgery in May 2011, changing the femoral head of Mary's hip implant. During the second revision surgery, Lux noted "a hole in the posterior capsule where the hip had dislocated." *Id.* at 22-23. Mary's left hip dislocated again in August 2011 when she bent over in the shower. Her hip dislocated in September 2011 when she leaned forward watching TV.

Lux performed a third revision surgery on Mary's left hip in October 2011, using metal-on-polyethylene components. He observed that the posterior capsule was "quite deficient" and "had been torn and the previous sutures had pulled out from her two previous dislocations since her last surgery." *Id.* at 28-29. Mary's left hip dislocated yet again in May 2012 when she bent over past 90 degrees.

Lux performed a fourth revision surgery on Mary's left hip in May 2012. During this surgery, Lux found that "the posterior capsule of the hip was basically missing as was the posterior 2/3 of the abductor." *Id.* at 31-32. Mary's hip dislocated in April 2014 when she bent over to pick up a block.

G. Fifth and sixth revision surgeries on Mary's left hip

In April 2014, Dr. Ryan Nunley performed a fifth revision surgery on Mary's left hip. Though Nunley noted no metallosis or corrosion during this surgery, Mary's left hip was by this time so degraded that he observed "none of [Mary's] normal soft tissue there." *Id.* at 35-37.

Nunley attempted to connect some of Mary's gluteus maximus fibers to her femur to improve her hip stability.

Mary's left hip dislocated again in November 2014 when she turned to talk to a family member at a basketball game. In March 2015, one of Mary's treating physicians noted that "[a]ll of her hip dislocations have occurred with inappropriate positioning of her hip." *Id.* at 42. Her left hip dislocated in October 2015 while putting on her socks and again in August 2017 at a volleyball game.

Dr. Christopher Mudd revised Mary's left hip for a sixth and final time in August 2017. Mary continues to experience pain and instability in her left hip. Most recently, her left hip dislocated in May 2019 when she was repositioning herself at a table.

H. Mary's right hip revision

In contrast to her left hip, Mary's right hip remained asymptomatic with the M2a Magnum after its implantation in January 2008 until March 2013. In November 2011, Mary's treaters tested her cobalt and chromium serum levels for the first time and found her levels elevated. Mary began experiencing discomfort in her right hip in March 2013. Mary's serum chromium and cobalt levels were lower—but still outside the reference (normal) range—when measured in May and December 2013.

In July 2014, Dr. Nunley performed a revision surgery on Mary's right hip because of the pain she was experiencing and due to concerns of possible metallosis based on Mary's experience with the left hip M2a Magnum. *Id.* at 59. Nunley removed the right-hip M2a Magnum and replaced it with an implant using non-metal components. Nunley's post-operative report noted "no overwhelming signs of metallosis" in the right hip but he did observe "a little bit of metallosis at the edge of the femoral head." Doc. 108-12.

The M2a Magnum implant removed from Mary's right hip was preserved for testing. The right-hip M2a Magnum was mechanically well-functioning at the time of revision. Well-functioning metal-on-metal hip implants are expected to wear at a rate of 1 to 5 cubic millimeters per year. Mary's right hip M2a Magnum exhibited a wear rate of 1.6 cubic millimeters per year.

I. M2a Magnum design

Plaintiffs' expert biomechanical engineer, Mari Truman, testified that the design of the M2a Magnum is unreasonably dangerous because of the choice to use metal-on-metal articulation, among other reasons. Truman testified that metal-on-metal articulation causes the release of metal ions that are toxic to cells. Dr. Lux, who performed Mary's first hip revision surgery, testified that the M2a-Magnum's metal-on-metal articulation caused the metallosis in Mary's left hip and subsequent destruction of her left hip musculature.

J. Biomet's experts' explanation of Mary's injuries

Biomet's expert Dr. Steven Kurtz opined that the positioning of Mary's left cup most likely impacted the performance of her artificial hip and her need for revision surgery. Kurtz further opined that the high abduction angle could have led to increased wear of her left M2a Magnum implant. Kurtz opined that no alternative material composition would have avoided Mary's need for revision surgeries. Biomet's expert Dr. Thomas Fleeter testified that Martin implanted Mary's left acetabular cup at a high abduction angle, which caused increased wear, leading to metallosis and tissue destruction around Mary's left hip. Fleeter further testified that Mary's history of repeat dislocations increased her risk of subsequent dislocations.

MOTIONS TO EXCLUDE

I. Legal standard

To be admissible, Federal Rule of Evidence 702 requires that the expert testimony (1) help the trier of fact determine facts at issue; (2) be based on sufficient facts or data; and (3) be the product of reliable principles and methods. In addition, the expert must have reliably applied those principles and methods to facts of the case. This Court must act as a "gatekeeper" in determining the admissibility of expert testimony and must "make a preliminary assessment of whether the proffered expert's methodology is both scientifically valid and applicable to the case." *Bland v. Verizon Wireless,* (VAW) LLC, 538 F.3d 893, 896 (8th Cir. 2007); *see also Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993).

II. Plaintiffs' expert Dr. Paul Lux

Plaintiffs' expert Dr. Paul S. Lux, M.D. is an orthopedic surgeon and Associate Professor of orthopedic surgery at the Washington University in St. Louis School of Medicine. Lux treated Mary, performing a series of revision surgeries on her left hip. Plaintiffs retained Lux to provide opinions regarding the medical causation of Mary's injuries.

A. Lux's opinions

After reviewing the relevant medical records, Lux prepared his initial expert report opining on causation. Lux also prepared a rebuttal report in response to the reports of Biomet's experts. Lux offers three principal opinions regarding the medical causation of Mary's injuries. First, Lux opines that "all the patient complications following [Mary's] left total hip replacement in 2008 were causally connected to the Biomet Magnum metal on metal hip replacement." Doc. 108-13. According to Lux, the "metal on metal articulation" of the Biomet implant "created metallosis with subsequent destruction of the hip abductor mechanism." *Id.* Second, Lux opines

that the position of the left hip implant was "not a factor" in the failure of Mary's hip replacement. Finally, Lux opines that Mary's need for revision of her *right* hip replacement was "causally connected to her Biomet metal on metal total hip replacement."

B. Biomet's motion to exclude

Biomet moves under Rule 702 to exclude Lux's causation opinions. Biomet does not challenge Lux's qualifications to offer opinions on medical causation. Instead, Biomet argues that Lux's causation opinions regarding the left hip should be excluded because Lux does not adequately rule out other causes of Mary's injuries. And Biomet argues that Lux's causation opinions regarding the right hip should be excluded because Lux disclaimed any opinion as to the right hip during his deposition.

1. Lux's opinions regarding Mary's left hip

Lux offers two related opinions regarding Mary's left hip. First, Lux opines that Mary's injuries were "causally connected" to the Biomet metal-on-metal implant used for her left hip replacement. Second, Lux opines that the position of the left hip implant was "not a factor" in the failure of her hip replacement. Biomet argues that both these opinions should be excluded because Lux fails to account for an "obvious alternative explanation" for Mary's injuries—namely, the vertical position of the left hip implant. Doc. 158 at 2, 5-6.

The Eighth Circuit has recognized that whether an expert adequately rules out other possibilities is a factor in determining the admissibility of the expert's causation opinion. *Lauzon v. Senco Prod., Inc.*, 270 F.3d 681, 693 (8th Cir. 2001). However, this requirement "should not be taken to a quixotic extreme" and an "expert's causation conclusion should not be excluded because he or she has failed to rule out *every* possible alternative cause." *Id.* (quoting *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 265 (4th Cir. 1999) (emphasis in original).

Rather, a causation opinion "should 'adequately account[ ] for obvious alternative explanations.'" *Redd v. DePuy Orthopaedics, Inc.*, 700 F. App'x 551, 554 (8th Cir. 2017) (quoting Fed. R. Evid. 702 advisory committees note to 2000 amendment).

Biomet argues that the position of the left hip implant—specifically the abduction angle of the acetabular cup—is an obvious alternative explanation for Mary's injuries. Biomet advises that the M2a Magnum should be implanted at an abduction angle between 40 and 45 degrees. Doc. 167 at ¶ 28. Lux calculated an abduction angle of 60 degrees on X-rays at the time of Mary's first left hip revision surgery in March 2011 (which he performed). Doc. 108-6. The higher the abduction angle, the more vertically-positioned the acetabular cup is within the hip. Plaintiffs' experts, including Lux, do not dispute that a vertically-positioned acetabular cup can cause increased wear of a metal-on-metal hip implant. Doc. 139 at 6. During his deposition, Lux testified that such increased wear—and the concomitant release of metal ions—is one possible cause of metallosis. Doc. 158-1 at 41:6-12.

Biomet argues to exclude Lux's causation opinions attributing the metallosis in Mary's left hip to the M2a Magnum because Lux fails to adequately account for an obvious alternative explanation, i.e., the vertically-positioned acetabular cup. The Court disagrees. In his rebuttal report, Lux specifically addresses the cup position and opines that, irrespective of any increased wear caused by the vertically-positioned cup, the metal-on-metal articulation of the M2a Magnum implant was a "but for" cause of Mary's injuries. Lux's report states:

> The metallosis and subsequent destruction of the soft tissue and bone in [Mary's] hip could never be present if [she] was implanted with a standard metal or ceramic on highly cross linked polyethylene in 2008. Even in a cup abducted past 60 degrees, you would *never* develop a pseudotumor or soft tissue destruction of this nature.

Doc. 108-6 (emphasis in original). The report continues:

> The ultimate cause of Ms. Bayes's left hip failure were [sic] the high level of ions found in her hip joint, produced by the metal on metal articulation, leading to massive tissue destruction.

Id. Thus, Lux's causation opinion addresses the abduction angle of the left cup, but rejects it as an alternative cause of Mary's injuries. Lux clearly opines that the abduction angle could not have caused Mary's injuries absent the M2a Magnum's metal-on-metal articulation. In other words, Lux opines that abduction angle is not an *alternative* cause because it could not have independently caused Mary's injuries. Biomet does not refute—or even address—Lux's contention that Mary's metallosis would "never" have occurred but for the metal-on-metal articulation of the M2a Magnum. Accordingly, the Court finds that Lux's causation opinion adequately accounts for alternative explanations.

2. Lux's opinions regarding Mary's right hip

Finally, Biomet seeks to exclude Lux's causation opinion regarding Mary's right hip. In his expert report, Lux opined that Mary's "need for revision of her right total hip replacement was causally connected to her Biomet metal on metal total hip replacement." Doc. 108-13. Biomet's sole argument for exclusion of this opinion is that Lux testified he would not provide any opinions as to the right hip. During his deposition on September 12, 2019, Lux testified:

> Q. And none of the opinions that you're offering at trial will be related to the right hip, correct?
> A. That's correct. Except for the position of the cup.
> Q. Which was acceptable?
> A. It was.
> Q. Have you been asked to offer any opinions about the right side?
> A. No.

Doc. 108-9 at 95:22-96:6. If that was Lux's final word on the right hip, Defendant's motion to exclude might have merit. However, two months *after* his September 12 deposition, Lux produced a rebuttal report in which he opined:

> The right hip similarly had high levels of metal ions, increasing pain, and evidence of metal staining at the time of revision. With the history of catastrophic failure on the left side, the need for revision on the right was clear. This same process was evolving in the right hip, although several years behind. The symptoms would have certainly progressed as the reaction to the metal ions intensified and she would have been left with an identical situation in her right hip. *The metal on metal articulation caused the need for revision on the right hip.*

Doc. 108-6 (emphasis added). Not only did the Court permit Plaintiffs to offer this rebuttal report, the Court also extended the discovery period for the express purpose of allowing Biomet to depose Plaintiffs' rebuttal experts (including Lux). Doc. 71. The record does not clearly show whether Biomet availed itself of this opportunity. But whether it did or not, Biomet had notice by Lux's rebuttal report that he intended to offer the causation opinion set forth above. Accordingly, the Court will permit Lux to testify at trial that the M2a Magnum's metal-on-metal articulation caused the need for Mary's right hip revision.

C. Conclusion

In sum, the Court denies Biomet's motion to exclude Lux's causation opinions.

III. Plaintiffs' expert Dr. George Kantor

Plaintiffs' expert Dr. George S. Kantor, M.D. is a licensed orthopedic surgeon. He has been board certified since 1986 by the American Board of Orthopaedic Surgery. Kantor was disclosed in the MDL as a general liability expert and he has also provided a case-specific rebuttal report.

A. Kantor's opinions

The MDL judge has already determined that Kantor may testify regarding "the design problems and risks associated with metal-on-metal devices generally." *See In re Biomet M2a Magnum Hip Implant Prod. Liab. Litig.*, No. 3:12-MD-2391, 2017 WL 10845178, at *17 (N.D. Ind. Dec. 21, 2017) (MDL Doc. 3486 at 38). In his case-specific report, Kantor opines that:

> The metal ions generated by the Biomet M2a Magnum Hip System are toxic to healthy tissue, and led to tissue death for Mary Bayes**.**

Doc. 108-15 at 27-28. Kantor further opines that the M2a Magnum caused the failure of Mary's left and right hip replacements. *Id.* at 26.

B. Biomet's motion to exclude

Biomet moves under Rule 702 to exclude Kantor's specific causation opinions as to Mary's left and right hips. As with Lux, Biomet does not challenge Kantor's qualifications to offer opinions on medical causation. Again, Biomet argues that Kantor fails to account for alternative causes of Mary's injuries.

1. Kantor's opinions regarding Mary's left hip

Biomet's arguments to exclude Kantor's causation opinion largely overlap with its arguments regarding Lux's opinion. Biomet again contends that Kantor's opinion must be excluded because he does not adequately account for the position of the left acetabular cup. Like Lux, Kantor specifically addresses the abduction angle of the left cup in his report. Unlike Lux, Kantor does not concede that the left cup was in a vertical position.

> [Mary's] index [total hip replacements] were implanted properly and her abduction angles were acceptable. I took measurements of the 2008 left-hip post surgical x-ray, which showed a 40 degree abduction. 40 degrees is within the recommended range of implantation.

Doc. 108-15 at 25. Thus, Kantor disagrees with the very premise of Biomet's "obvious alternative explanation"—he denies that the left cup was out of position at all.

During his deposition, Kantor testified that his opinion on the left hip position was based largely, if not exclusively, on the 2008 X-rays. *See* Doc. 108-14 at 189:6-17. Biomet argues that Kantor's exclusive reliance on the 2008 X-rays renders his causation opinion inadmissible because Mary's X-rays from 2010 and after consistently show an abduction angle of 60 degrees. Plaintiffs' own expert, Lux, observed an abduction angle of 60 degrees on 2011 X-rays. Thus,

Biomet contends, Kantor has not accounted for the obvious alternative explanation that the vertical position of the left cup resulted in excessive wear, causing Mary's metallosis.

The Court finds that Biomet's criticisms go to the weight, rather than the admissibility, of Kantor's causation opinion. "An expert's opinion should be excluded only if that opinion is so fundamentally unsupported that it can offer no assistance to the jury.'" *Synergetics, Inc. v. Hurst*, 477 F.3d 949, 956 (8th Cir. 2007) (quoting *Bonner v. ISP Tech., Inc.*, 259 F.3d 924, 929-30 (8th Cir. 2001). Kantor's opinion that the left cup was properly positioned is supported by his own measurements of the 2008 X-rays. Further, Kantor's deposition testimony challenges the reliability of post-operative X-rays to accurately measure abduction angle. He testified: "[T]he true indication of really where you are anatomically is what you see in the operative setting." Doc. 108-14 at 191:16-18. Thus, Kantor disputes the factual basis for Biomet's contention that the left cup was vertically-positioned.

Biomet's "mere disagreement with the assumptions and methodology used does not warrant exclusion" of Kantor's causation opinion. *Synergetics*, 477 F.3d at 956. Biomet will have opportunity to cross-examine Kantor at trial—including with Mary's post-2010 X-rays. *See Daubert*, 509 U.S. at 596 ("Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."). Accordingly, the Court denies Biomet's motion to exclude Kantor's causation opinion regarding Mary's left hip.

2. Kantor's opinions regarding Mary's right hip

Kantor opines that the M2a Magnum caused the failure of Mary's right hip replacement. Doc. 108-15 at 26. Biomet argues that the Court should exclude this causation opinion because

Kantor failed to account for alternative explanations and because there is "no evidence that Mary suffered a metal reaction injury in the right hip." Doc. 108 at 14.

The Court first considers Biomet's argument that Kantor's opinion should be excluded for lack of evidence of injury to the right hip. In reaching his opinion on the right hip, Kantor relied on Mary's medical records, including the post-operative report of Dr. Nunley, who performed Mary's right hip revision. Biomet asserts that Nunley "[did] not identify metallosis anywhere in Mary's right hip." *Id.* This is inaccurate. Nunley's post-operative report states: "We did not encounter *excessive amount* of metallosis. There was a little bit of metallosis at the edge of the femoral head in the trunnion." Doc. 108-12 (emphasis added). Nunley testified that Mary's right hip revision was necessary because Mary "had elevated metal ion levels that were worrisome." Doc. 139-3 at 37:21-23.

At his deposition, Kantor explained the basis for his opinion the M2a Magnum caused the failure of Mary's right hip replacement.

> [S]he obviously had a complication on her right hip because her right hip necessitated a revision operative procedure. … You know, the damage is well-documented qualitatively by Dr. Nunley. … [T]o say that there is nothing wrong with the right hip, I think would be wrong. Number one, she had a revision. Number two, there is documented -- [damage] in that revision; albeit, not nearly as significant as on the contralateral left side.

Doc. 139-2 at 263:18-264:6. Kantor's opinion is not so "fundamentally unsupported that it can offer no assistance to the jury." *Synergetics*, 477 F.3d at 956. Kantor permissibly relied on Nunley's report to reach his opinion. Any dispute Biomet has regarding the severity or extent of Mary's right hip injury may be addressed through cross-examination and presentation of contrary evidence. *Daubert*, 509 U.S. at 596.

Finally, the Court considers Biomet's argument that Kantor failed to account for alternative explanations for Mary's right hip injury. Biomet suggests two alternative causes for

the metallosis observed in Mary's right hip: the position of the right hip cup and metal components used in an unrelated spinal surgery. Doc. 108 at 15. An expert's causation opinion need only account for "obvious alternative explanations." *Redd*, 700 F. App'x at 554. The record does not show that either of these alternative explanations was a likely cause of Mary's metallosis, much less an "obvious" one. Biomet cites no expert report or testimony attributing Mary's right hip metallosis to the position of the right hip cup or to Mary's spinal surgery. Further, Kantor considered the position of the right hip cup as a factor causing Mary's injury and expressly rejected it. He testified: "I don't get a sense that the components … were the case of component malposition. There was nothing grossly wrong with the position of the cup." Doc. 139-2 at 191:22-25. On this record, the Court finds Kantor's opinion adequately accounts for alternative explanations.

C. Conclusion

In sum, the Court denies Biomet's motion to exclude Kantor's case-specific causation opinions.

BIOMET'S MOTION FOR SUMMARY JUDGMENT

Plaintiffs' twelve-count Complaint asserts claims against Biomet for strict liability, negligence, breach of express and implied warranties, misrepresentation, loss of consortium, and punitive damages. Biomet moves for summary judgment on all counts of Plaintiffs' Complaint.

I. Legal standard

Rule 56(a) of the Federal Rules of Civil Procedure provides that "[t]he court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." In ruling on a motion for summary judgment, the Court is required to view the evidence in the light most favorable to the non-

moving party and must give that party the benefit of all reasonable inferences to be drawn from the underlying facts. *AgriStor Leasing v. Farrow*, 826 F.2d 732, 734 (8th Cir. 1987). The moving party bears the initial burden of showing both the absence of a genuine issue of material fact and entitlement to judgment as a matter of law. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986); Fed. R. Civ. P. 56(a).

In response to the proponent's showing, the opponent's burden is to "come forward with 'specific facts showing that there is a genuine issue for trial.'" *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (quoting Fed. R. Civ. P. 56(e)). Self-serving, conclusory statements without support are insufficient to defeat summary judgment. *Armour and Co., Inc. v. Inver Grove Heights*, 2 F.3d 276, 279 (8th Cir. 1993). Rule 56(c) "mandates the entry of summary judgment, after adequate time for discovery and upon motion, against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial." *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

II. Discussion

A. Plaintiffs do not oppose Biomet's motion on Counts I and III

Biomet first moves for summary judgment on Plaintiffs' claims for Strict Liability – Manufacturing Defect (Count I) and Strict Liability – Non-Conformance with Representations (Count III), arguing that Plaintiffs have presented no evidence of a manufacturing defect and that Missouri does not recognize a strict products liability action for non-conformance with representations. Doc. 125 at 11, 27. Plaintiffs do not oppose Biomet's motion for summary judgment on these claims. Doc. 147 at 1-2. Accordingly, the Court grants Biomet's motion for summary judgment on Counts I and III.

B. Design defect (Count II)

Biomet also moves for summary judgment on Plaintiffs' claim for Strict Liability – Design Defect. Biomet argues that Mary has not shown that a design defect in the M2a Magnum caused her injuries. In Missouri, the plaintiff bears the burden to demonstrate that the product design was defective and that the defect caused the plaintiff's injury. *Pritchett v. Cottrell, Inc.*, 512 F.3d 1057, 1063 (8th Cir. 2008) (citing *Richcreek v. Gen. Motors Corp.*, 908 S.W.2d 772, 776 (Mo. Ct. App. 1995)). "The 'heart and soul' of a strict liability design defect case is unreasonable danger and causation." *Smith v. Brown & Williamson Tobacco Corp.*, 275 S.W.3d 748, 792 (Mo. Ct. App. 2008) (quoting *Nesselrode v. Exec. Beechcraft, Inc.*, 707 S.W.2d 371, 376 (Mo. 1986)). "A plaintiff proves causation in a product defect case 'by providing competent expert testimony or additional evidence that the defendant's product was a substantial factor in causing the injury.'" *Mathes v. Sher Express, LLC*, 200 S.W.3d 97, 103 (Mo. Ct. App. 2006) (quoting *Dorman v. Bridgestone/Firestone, Inc.*, 992 S.W.2d 231, 237 (Mo. Ct. App. 1999)). "Missouri uses the 'but-for' causation test; use of [a product] was a legal cause of [a plaintiff]'s injuries if they would not have occurred 'but for' that conduct." *Bone v. Ames Taping Tool Sys., Inc.*, 179 F.3d 1080, 1081 (8th Cir. 1999) (citing *Callahan v. Cardinal Glennon Hosp.*, 863 S.W.2d 852, 860–63 (Mo. banc 1993)). A plaintiff establishes a *prima facie* case of causation "where the evidence is susceptible to a reasonable inference" that the injuries were caused by the complained-of conduct. *Kircher v. Purina Mills, Inc.*, 775 S.W.2d 115, 117 (Mo. 1989).

As evidence that a design defect in the M2a Magnum caused Mary's injuries, Plaintiffs rely in part on the testimony of Mari Truman, their expert biomechanical engineer. Truman was disclosed in the MDL, and the MDL judge has already denied Biomet's Rule 702 motion to exclude Truman's non-case-specific opinions, including the following: (1) all metal-on-metal

devices are defectively designed; (2) metal-on-polyethylene devices are a reasonably safe alternative to metal-on-metal devices; and (3) Biomet's metal-on-metal devices can cause elevated metal ions with immune response complications, including tissue necrosis. MDL Doc. 3486 at 25, 32.

Notwithstanding the MDL judge's ruling on the admissibility of Truman's opinions, Biomet contends that Plaintiffs have failed to show that any design defect in the M2a Magnum caused Mary's injuries specifically. Biomet first argues that Plaintiffs cannot establish specific causation because Lux and Kantor's case-specific opinions are inadmissible. Assuming Lux and Kantor's opinions are inadmissible, Biomet argues that the only admissible evidence of specific causation—offered by its own experts, Kurtz and Fleeter—attributes Mary's injuries to the left cup position and to Mary's failure to follow post-surgery movement restrictions, leading to her dislocations. Because the Court has denied Biomet's motion to exclude the specific causation opinions of Lux and Kantor, this argument fails. As noted above, the MDL judge permitted Truman to opine that Biomet's metal-on-metal devices are defectively designed and can cause elevated metal ions leading to tissue necrosis. And Lux has opined that

> [t]he ultimate cause of Ms. Bayes's left hip failure [was] the high level of ions found in her hip joint, produced by the metal on metal articulation, leading to massive tissue destruction.

Doc. 108-6. Taken together, the Court finds this evidence "susceptible to a reasonable inference" that a design defect in the Magnum M2a caused Mary's injuries. *Kircher*, 775 S.W.2d at 117.

Biomet next argues that Plaintiffs' design defect theory cannot account for the different outcomes of Mary's left and right hips, since both implants used identical metal-on-metal components. Truman testified that Mary had "less wear volume and less metallosis, so with less metallosis, she had less tissue destruction" in her right hip than in her left. Doc. 126-8 at 139:10-

18. Truman theorized that the differing outcomes could have been caused by different abduction angles (possibly caused by migration of the left hip cup after implantation), biomechanics specific to Mary's hips, or discrepancies in bone quality. *Id.* at 140:8-17. Biomet argues that Truman's explanations—even if true—are irrelevant because they are unrelated to any alleged design defect in the M2a Magnum. Thus, Biomet contends that Plaintiffs have conceded some other factor—rather than a design defect—caused Mary's injuries. The Court disagrees. Missouri uses the "but-for" causation test. *Bone*, 179 F.3d at 1081. The M2a Magnum was a legal cause of Mary' injuries if they would not have occurred "but for" use of the M2a Magnum. *Id.* Lux's opinion on but-for causation is unequivocal. He opines that the metallosis and tissue damage in Mary's hip "could never be present" if Martin had implanted a non-metal-on-metal device in Mary's hip. Doc. 108-6. Thus, the Court finds a genuine dispute of fact as to whether Mary's injuries were caused by a design defect in the M2a Magnum.

Finally, Biomet argues for summary judgment on Plaintiffs' design defect claim on the grounds that "a design defect claim cannot be against a class of products as a whole." Doc. 166 at 2. Biomet argues that Plaintiffs' design defect theory—i.e., that metal-on-metal articulation causes the release of toxic metal ions—applies generally to *all* metal-on-metal devices rather than to the M2a Magnum specifically. Biomet contends that this type of generally-applicable criticism cannot support a design defect claim in Missouri as a matter of law.

Biomet cites only a single case for this broad proposition, *Glass v. Allis-Chalmers Corp.*, 789 F.2d 612 (8th Cir. 1986). In *Glass*, the plaintiff brought a design defect claim against the manufacturer of a combine, alleging that the particular make and model at issue had a propensity to catch fire. *Id.* at 613. At summary judgment, the plaintiff relied only on an affidavit from a mechanic stating that "he had worked on several combines that had caught on fire for various

reasons." *Id.* at 614. Applying Missouri law, the Eighth Circuit affirmed summary judgment for the manufacturer. Noting that the plaintiff could have proven a design defect by circumstantial evidence, the Court determined

> the affidavit of the mechanic was insufficient for that purpose. The affidavit merely indicates that combines in general, and not necessarily this particular make and model, catch on fire for various reasons. No defect in this particular make and model of combine can be inferred from such evidence.

Id. From this unremarkable holding, Biomet extrapolates that "generic criticism about a class of devices…is not enough to survive summary judgment under Missouri law." Doc. 125 at 20.

The Court finds *Glass* easily distinguishable. Biomet's reliance on *Glass* is premised on a faulty analogy. Biomet would have the Court equate "metal-on-metal hip implants" to the category of "combines in general" in *Glass*. But that is not the correct comparator. The corresponding category to *combines in general* is *hip implants in general*. Certainly, Plaintiffs could not survive summary judgment merely by showing that hip implants generally are prone to failure. But Plaintiffs' criticism of *metal-on-metal* hip implants is criticism of a particular design choice. That alone distinguishes the present case from *Glass*. Whether the use of metal-on-metal articulation in hip implants is always unreasonably dangerous is a disputed question of fact. (As noted above, Truman will opine that it is.) But Plaintiffs are not precluded from asserting that the M2a Magnum is defective merely because it may share a design defect with other metal-on-metal devices. To hold otherwise would lead to an absurd result: Missouri product designers could insulate themselves from liability simply by repeating the design defects of their competitors. *Glass* does not require this result, and the Court declines to so hold. Accordingly, the Court denies Biomet's motion for summary judgment on Plaintiffs' design defect claim (Count II).

C. Failure to warn (Count IV)

In Missouri, the elements of a cause of action for strict liability failure to warn are: "(1) the defendant sold the product in question in the course of its business; (2) the product was unreasonably dangerous at the time of sale when used as reasonably anticipated without knowledge of its characteristics; (3) the defendant did not give adequate warning of the danger; (4) the product was used in a reasonably anticipated manner; and (5) the plaintiff was damaged as a direct result of the product being sold without an adequate warning." *Moore v. Ford Motor Co.*, 332 S.W.3d 749, 756 (Mo. 2011). Causation in a failure to warn case requires that the product with the missing warning cause the plaintiff's injuries and that a warning would have altered the behavior of the user of the product. *Arnold v. Ingersoll-Rand Co.*, 834 S.W.2d 192, 194 (Mo. 1992). A rebuttable presumption applies that "a warning, if provided, will be read and heeded." *Johnson v. Medtronic, Inc.*, 365 S.W.3d 226, 232 (Mo. Ct. App. 2012); *Grady v. Am. Optical Corp.*, 702 S.W.2d 911, 918 (Mo. Ct. App. 1985).

Missouri courts apply the learned intermediary doctrine in prescription drug and medical equipment or device cases involving failure to warn claims. *Doe v. Alpha Therapeutic Corp.*, 3 S.W.3d 404, 419 (Mo. Ct. App. 1999); *Kirsch v. Picker Intern., Inc.*, 753 F.2d 670, 671 (8th Cir. 1985) (applying Missouri law). Under this doctrine, "a manufacturer of prescription drugs or products discharges its duty to warn by providing the physician with information about risks associated with those products." *Doe*, 3 S.W.3d at 419. "[A]ny warning given to the physician is deemed a warning to the patient." *Id*.

Biomet argues for summary judgment on Plaintiffs' failure to warn claim on two separate grounds. First, Biomet contends that its warning was adequate as a matter of law because the M2a Magnum's Instructions for Use warned of the very risks Mary alleges caused her injuries.

Second, Biomet argues that, even if the warning was inadequate, Plaintiffs cannot establish causation because Dr. Martin did not read the Instruction for Use. Thus, Biomet argues, Plaintiffs cannot show that any different or better warning would have prevented Mary's injuries.

The Court first considers Biomet's argument that Plaintiffs cannot show causation because Martin admits he never read the Instructions for Use. To establish causation on her failure to warn claim, Mary must show that an adequate warning would have prevented her injuries. *Arnold*, 834 S.W.2d at 194. Martin testified that he did not read the M2a Magnum Instructions for Use before performing Mary's hip replacement surgeries. Doc. 148-14 at 62:7-14. Thus, Biomet's contends that a different or better warning in the Instructions for Use would not have prevented Mary's injuries. The Court agrees.

Plaintiffs have not shown that Biomet's alleged failure to warn caused Mary's injuries. While a rebuttable presumption arises that a person will heed a warning if one is provided, Biomet has rebutted that presumption with Martin's testimony. *See Harris v. McNeil Pharm.*, No. CIV 3:98CV105, 2000 WL 33339657, at *3 n. 3 (D.N.D. Sept. 5, 2000) ("The presumption that had an adequate warning been given it would have been read and heeded is rebutted by [the physician's] testimony that he did not read the warning."). Not only did Martin admit he never read the Instructions for Use, he further testified that he relied on professional meetings and medical literature—rather than manufacturer Instructions for Use—to alert him of the potential risks of implant devices. Doc. 148-14 at 62:15-23. With Martin's testimony, Plaintiffs cannot connect Mary's injuries to Biomet's alleged failure to warn, because no matter what warning Biomet had included in the Instructions for Use, it would not have changed Martin's behavior.

Other courts have found similarly in cases alleging claims of strict liability for failure to warn. *See, e.g., Johnson v. Medtronic, Inc.*, 365 S.W.3d 226, 233 (Mo. Ct. App. 2012) (finding

no proximate causation where a doctor failed to read instructions and warnings printed on a defibrillator before using it); *Nelson v. Ford Motor Co.*, 150 F.3d 905, 907 (8th Cir. 1998) (stating "it was not shown that modified or additional warnings would likely have prevented the accident" after plaintiff testified "he had not consulted the existing warnings because he thought he knew how to use the [car] jack") (applying Missouri law); *see also Abt v. Ethicon, Inc.*, No. 1:20-CV-0047 SRC, 2020 WL 4887022, at *2 (E.D. Mo. Aug. 20, 2020) (no causation where additional warnings would not have changed physician's behavior); *Thom v. Bristol–Myers Squibb Co.*, 353 F.3d 848, 856 (10th Cir. 2003) ("The majority of courts that have examined the issue have held that when a physician fails to read or rely on a drug manufacturer's warnings, such failure constitutes the 'intervening, independent, and sole proximate cause' of the plaintiff's injuries, *even where the drug manufacturer's warnings were inadequate*.") (emphasis in original). Plaintiffs have failed to establish the necessary element of causation. Accordingly, the Court grants Biomet's motion for summary judgment on Plaintiffs' strict liability failure to warn claim (Count IV).

Because the Court grants summary judgment on this claim based on Plaintiffs' failure to show causation, the Court need not consider Biomet's alternative argument that the warning was adequate as a matter of law.

D. Misrepresentation and breach of warranties (Counts VI-X)

Plaintiffs assert claims for Breach of Express Warranty (Count VI), Negligent Misrepresentation (Count VIII), Fraudulent Misrepresentation (Count IX), and Fraudulent Concealment (Count X). Biomet moves for summary judgment, arguing that Plaintiffs have failed to establish the reliance element of these claims.

To establish a *prima facie* case of negligent misrepresentation, fraudulent misrepresentation, fraudulent concealment, or breach of express warranty under Missouri law, a plaintiff must show that she detrimentally relied on a false claim by the defendant. *See Renaissance Leasing, LLC v. Vermeer Mfg. Co.*, 322 S.W.3d 112, 122 (Mo. 2010) (express warranty); *Cambridge Eng'g, Inc. v. Robertshaw Controls Co.*, 966 F. Supp. 1509, 1520-21 (E.D. Mo. 1997) (fraudulent misrepresentation and fraudulent concealment); *Collins v. Missouri Bar Plan*, 157 S.W.3d 726, 734 (Mo. Ct. App. 2005) (negligent misrepresentation); *see also Lachance v. Am. Home Prod. Corp.*, No. 01-0890-CV-W-ODS, 2006 WL 89850, at *3 (W.D. Mo. Jan. 13, 2006) (collecting cases).

Plaintiffs do not dispute that reliance is a necessary element of their misrepresentation and express warranty claims. Doc. 147 at 18-20. Instead, Plaintiffs argue they have shown that Dr. Martin did, in fact, rely on a misrepresentation from Biomet when he selected the M2a Magnum for Mary's hip implants.

Plaintiffs apparently assume, without any citation to authority, that Missouri's learned intermediary doctrine applies to their misrepresentation and warranty claims, and therefore that evidence of Martin's reliance is sufficient. In its reply, Biomet does not dispute that the learned intermediary doctrine applies. *See* Doc. 166 at 12-13. Other courts have applied the learned intermediary doctrine to misrepresentation claims. *See, e.g., Bruzer v. Danek Med., Inc.*, No. CIV. 3-95-971/RHKJMM, 1999 WL 613329, at *6 (D. Minn. Mar. 8, 1999) (applying Minnesota law). The Court finds it unnecessary to decide the applicability of the learned intermediary doctrine here, because Plaintiffs have not shown that Martin *or* Mary relied on any claim by Defendants in selecting the M2a Magnum.

Mary did not review any Biomet promotional material or speak to any Biomet representatives before her hip replacement surgeries. In fact, Mary provided no input at all in the decision to use the M2a Magnum. Similarly, Plaintiffs have not shown that any false claim by Biomet influenced Martin's selection of the M2a Magnum. Plaintiffs argue that certain claims in Biomet's advertising of the M2a Magnum were false or misleading. Specifically, Plaintiffs identify the graphic in the M2a Magnum brochure depicting a larger volume of wear debris from a metal-on-polyethylene implant compared to a metal-on-metal implant. Doc. 148-20 at 12. Plaintiffs argue the graphic is misleading because it implies the smaller volume of metal debris is safer. Assuming without deciding that the graphic constitutes a false claim, Plaintiffs have failed to show that Martin relied on this claim in choosing the M2a Magnum. The record contains no evidence that Martin ever saw the M2a Magnum brochure at issue.

Plaintiffs argue that a factfinder could infer Martin relied on Biomet's marketing materials because he believed, at the time of Mary's hip implants, that metal-on-metal devices generated a smaller volume of wear debris than other devices. Doc. 148-14 at 22:23-23:5. But the fact that Martin shared a view *consistent* with Biomet's marketing materials, absent more, does not show that Martin *relied on* those marketing materials. In fact, Martin specifically testified that advertisements from device manufacturers "don't change [his] method of practice." Doc. 126-3 at 11:13-20. Thus, Plaintiffs' contention that Martin relied on any claim in Biomet's advertising is mere conjecture, unsupported by the record. Conjecture and speculation are insufficient to withstand a motion for summary judgment. *See Williams v. Mannis*, 889 F.3d 926, 931 (8th Cir. 2018). Accordingly, the Court grants Biomet's motion for summary judgment on Plaintiffs' claims for breach of express warranty (Count VI), negligent misrepresentation (Count VIII), fraudulent misrepresentation (Count IX), and fraudulent concealment (Count X).

Biomet does not argue that Plaintiffs' claim for Breach of Implied Warranty (Count VII) fails for lack of reliance. *See* Doc. 125 at 26-27 ("[T]he Court should dismiss Plaintiffs' fraud, misrepresentation, and breach of express warranty claims (Counts VI, VIII, IX, and X) as a matter of law for lack of reliance."). Nor does Biomet offer any separate argument for summary judgment on Plaintiffs' implied warranty claim; thus, the Court denies Biomet's motion for summary judgment on that claim, i.e., Count VII.

E. Negligence (count V)

In Count V of their Complaint, Plaintiffs allege that Biomet was negligent in the "design, formulation, manufacture, sale, testing, quality assurance, quality control, labeling, marketing, promotion and distribution" of the M2a Magnum. Doc. 1 at ¶ 82. Biomet argues that Plaintiffs' claim for negligent manufacture fails for the same reason as their strict liability manufacturing defect claim. Plaintiffs do not oppose summary judgment on their negligent manufacture claim. *See* Doc. 147 at 3. Accordingly, the Court grants summary judgment for Biomet on Count V to the extent Plaintiffs alleged negligent manufacture.

Plaintiffs oppose Biomet's motion for summary judgment on Count V as to their claims for negligent design and negligent failure to warn. *Id.* Biomet does not offer any argument for summary judgment on these claims separate from its arguments pertaining to strict liability design defect and failure to warn, i.e., failure to show causation. The causation elements are the same for strict liability design defect and negligent design, as well as for strict liability and negligent failure to warn. *See Moore*, 332 S.W.3d at 764; *Peters v. Gen. Motors Corp.*, 200 S.W.3d 1, 21 (Mo. Ct. App. 2006).

As discussed above, Plaintiffs have failed to establish causation on their claim for strict liability failure to warn. For the same reasons, Plaintiffs cannot establish causation on their

negligent failure to warn claim. Conversely, because Plaintiffs presented a submissible case on the issue of causation as to strict liability design defect, Plaintiffs' claim for negligent design also survives summary judgment. The Court thus denies Biomet's motion for summary judgment on Plaintiffs claim for negligent design, and grants summary judgment for Biomet on Plaintiffs' claim for negligent failure to warn.

F. Loss of consortium (Count XII)

In Count XII, Philip alleges loss of consortium caused by the injuries to his wife. A claim for loss of consortium "encompasses the other spouse's loss of affection, care, companionship, and services, as well as an impairment or destruction of the sexual life of the married couple, due to the conduct of the tortfeasor." *Wright v. Barr*, 62 S.W.3d 509, 537 (Mo. Ct. App. 2001). Loss of consortium is a derivative claim. *Richardson v. State Highway & Transp. Comm'n*, 863 S.W.2d 876, 880 (Mo. 1993). For one spouse to recover for loss of consortium, the other spouse must have a valid claim for personal injury. *Id.*

Biomet's sole argument for summary judgment on Philp's loss of consortium claim is that all of Mary's claims otherwise fail. Because the Court denies Biomet's motion for summary judgment on Plaintiffs' design defect claims, the loss of consortium claim likewise withstands summary judgment. The Court denies Biomet's motion for summary judgment on Count XII.

G. Punitive damages (Count XI)

Finally, Biomet moves for summary judgment on Plaintiffs' claim for punitive damages (Count XI). Plaintiffs oppose the motion. The Parties dispute which state's law governs Plaintiffs' claim for punitive damages. *See* Doc. 125 at 28-30 (arguing Indiana law applies); Doc. 147 at 20 (stating Missouri law applies).

The Court has ordered the Parties to brief the choice-of-law issue in their respective trial briefs. Doc. 187 at 44:15-22. Accordingly, the Court will reserve ruling on Biomet's motion for summary judgment on Count XI pending the Parties' further briefing on the choice-of-law issue.

Accordingly,

IT IS HEREBY ORDERED that [107] Biomet's Motion to Exclude Specific Causation Opinions of Dr. Paul Lux and Dr. George Kantor is DENIED.

IT IS FURTHER ORDERED that [124] Biomet's Motion for Summary Judgment is GRANTED in part and DENIED in part as set forth fully herein.

IT IS FINALLY ORDERED that the Parties shall submit revised proposed jury instructions in light of this Order on or before September 4, 2020.

So Ordered this 28th day of August, 2020.

STEPHEN R. CLARK
UNITED STATES DISTRICT JUDGE